

## **AMORPHOUS SELENIUM DETECTOR FOR TOMOTHERAPY AND OTHER IMAGE-GUIDED RADIOTHERAPY SYSTEMS**

### **ABSTRACT**

The present invention provides a detector for use in medical and industrial  
5 applications for detecting high energy radiation, especially for use in tomotherapy and  
other image-guided radiotherapy systems. The detector is preferably housed in an  
enclosure. A plurality of detector elements are installed within the enclosure. The  
detector elements preferably include a substrate, a readout electrode layer deposited on at  
least one surface of the substrate, an amorphous selenium layer deposited on at least one  
10 surface of the readout electrode layer, and a high voltage electrode layer deposited on at  
least one surface of the amorphous selenium layer.

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